The OVH ARC Newsletter
OLE VIRGINIA HAMS" AMATEUR RADIO CLUB, INC.
Post Office Box 4293, Manassas, Va. 20108-0728
OVH FM Repeaters - 146.970- & 224.660- & 442.200+ & 443.500+
OVH D-STAR Repeaters - W4OVH - 146.865- & 442.5125+
Web Site at **http://w4ovh.net**

OLE VIRGINIA TIMES

August 2024

Upcoming Monthly Meeting: Tuesday, August 20, 2024

PRESIDENT'S LETTER:

Greetings All,

With September only a few weeks away, I am reminded that while Hurricane Season officially started on June 1st, here in the Mid-Atlantic it usually (unofficially) begins a bit later. The remnants of Hurricane Debby came through this area earlier this month just as brief heavy rain, but much, much worse, not yet known, could still be on the way during the next two months. So now would be a good time to check your emergency communications equipment, supplies, including batteries. It would also be a good time to verify the integrity of both your antenna(s) and the guy wires.

Over the years, the Ole Virginia Hams have had several members completely fry their equipment due to lightning strikes or had their residences or trees next to their residences struck by lightning. So, I think it would also be good to review your safe grounding and lightning surge isolation setups. Doing that will save you a lot of money and (re-setup) aggravation later on for your ham, computer and networking equipment.

Monthly Breakfast. You don't have to wait until our in-person meetings to see everyone again; you can come out Saturday, August 17th at 8:00 AM for our monthly breakfast. Pioneered by Byron, AK4XR, we get together every Saturday before our meetings at a table or two in the back of Yorkshire Restaurant for some good food and good conversation. Yorkshire Restaurant, 7537 Centreville Road, Manassas. We hope to see you there.

Monthly Meeting. The OVH next regular monthly meeting will be on Tuesday, August 20th at the Buckhall VFD Fire Department Hall, 7190 Yates Ford Road, Manassas, 7:30 PM – 9:00 PM EDT. Our presentation will feature Andrew Zwirko, K1RA, who will talk about LoRa and Meshtastic networks.

Cont'd on Page 3

Ole Virginia Hams Amateur Radio Club, Inc.

Post Office Box 4293
Manassas, Virginia 20108-0728

OFFICERS

President:	Ken Brant	KN4DD	622-2638
Vice Pres:	Gil Thompson	KM4OZH	369-0431
Secretary:	John Heartney	KG4NXT	257-3566
Treasurer:	Jeff Porter	K9VEG	216-7734

DIRECTORS

Don (Butch) Blasdell	W4HJL	369-2877
Arthur Whittum	W1CRO	791-4330
Bob Zaepfel	K4HJF	282-2451
Theresa Heartney	KG4TVM	257-3566

WEEKLY FM REPEATER NET COORDINATOR

JOHN	KG4NXT	257-3566

Thurs - 8:00 PM Local Time

TAILGATE (HAMFEST) 2024 - CHAIRMAN

Don	WA2SWX	597-3211

FIELD DAY 2024 - CHAIRWOMAN

Cat **otohime.1978@gmail.com**	KM4PBD	571-213-2179

CLUB ROSTER / DATABASE

Arthur	W1CRO	791-4330

VE COORDINATOR

Mark	WA4KFZ	818-8033

CLUB EMERGENCY COORDINATOR

Open - volunteer needed!

ARES - EMERGENCY COORDINATOR

David Lane	KG4GIY	628-3868

See **http://pwcares.org** email: **kg4giy@arrl.net**

FINANCE

Arthur	W1CRO	791-4330
Mark	WA4KFZ	818-8033
Don	WA2SWX	597-3211

GENERATORS

Byron	AK4XR	222-2095
Al	KB4BHB	368-4794

WARRIOR BIKE RIDE - CHAIRMAN

Andy **andy@gamponia.com**	KJ4MTP	785-4651

WEB COMMITTEE — W4OVH.NET + Twitter & Facebook

Kevin	W4RKU	540-445-5183
John	KG4NXT	257-3566
Ken	KN4DD	622-2638

Web Committee "help request" email: **webmaster@w4ovh.net**

EMAIL REFLECTOR — w4ovh@googlegroups.com

John	KG4NXT	257-3566

MANASSAS CHRISTMAS PARADE - OVH COORDINATOR

George	K4GVT	791-5956

LEGAL

Bob	K4HJF	282-2451

MEMBERSHIP CHAIRMAN

Luther	WA3FMO	361-4885

NEWSLETTER

Paul	W4ZB	754-0910

CHRISTMAS / YEAR END PARTY - CHAIRPERSON

Theresa.	KG4TVM	257-3566

PROGRAMS

John	KG4NXT	257-3566

QUARTERMASTER

Open - volunteer needed!

THURSDAY NIGHT NET / REPEATER CONTROLLERS

John	KG4NXT	257-3566
Ken	KE2N	753-8587
George	K4GVT	791-5956
Al	KB4BHB	368-4794
James	KQ4CAX	628-5186
David	KG4GIY	361-3042
Cat	KM4PBD	571-213-2179

W4OVH — TRUSTEE

Gil	KM4OZH	369-0431

W4PVA — TRUSTEE

Arthur	W1CRO	791-4330

SCHOLARSHIP 2022

Ken	KN4DD	622-2638

SUNSHINE

Theresa	KG4TVM	257-3566

TECHNICAL COMMITTEE

Ken	KE2N	753-8587
Andy	KJ4MTP	786-4651
George	K4GVT	791-5956
Arthur	W1CRO	791-4330
Butch	W4HJL	369-2877
Bob	K4HJF	335-1939
David	KG4GIY	628-3868
Gil	KM4OZH	369-0431

HISTORIAN

Theresa	KG4TVM	257-3566

All telephone numbers listed above are for Area Code 703 unless otherwise noted. This is the official monthly publication of the Ole Virginia Hams Amateur Radio Club, Inc., a §501(c)(3) organization, dedicated to the promotion and enhancement of Amateur Radio. Copyright © 2024 by the Ole Virginia Hams which holds its regular monthly meetings at 7:30 p.m. every third Tuesday at the Buckhall Volunteer Fire Department Station, 7190 Yates Ford Road, Manassas, Virginia except during the COVID pandemic (in 2020-2021) during which the monthly meetings were held online. The Newsletter will have login details for monthly online meetings if applicable. Members, prospective members and other interested persons are invited to attend without obligation. Local information can also be obtained through the OVH's FM repeaters on 146.970-, 224.660-, 442.200+ and 443.500+ MHz. Up to date information about OVH activities and its meetings is also available during the OVH's nets on its FM Repeaters each Thursday night at 8:00 p.m. or through the OVH's web site at **http://w4ovh.net** Articles in this newsletter may be reprinted if credit is given to the OVH ARC and other source(s) noted. Proposed materials for publication, classified ads, notes about specific errors, complaints or the like are solicited. Forward such items to the Newsletter Editor: **paul@w4zb.com**. Approx. Circ.: 170. Last Rev: 20240714

Cont'd from page 1

On a related note, I expect this will be the last meeting I will be able to attend for several months. Reason: I am going to have knee replacement surgery. OVH VP Gil / KM4OZH will be my good stand-in replacement at the meetings until I am able to attend again. While I'm out, someone else with AV expertise may be needed to help with the with equipment used for presentations at our regular meetings, so please think about volunteering for that.

The Warrior Bike Ride. The OVH is again supporting the 7th Annual Warrior Ride to be held on September 7th - now less than a month away. To do that with full effectiveness, we need about 28 ham operator volunteer spotters to man the entire 60-mile bike ride course. This is a lot of volunteers, but this is also a very worthwhile charity and we really need the help. And a big thank you to those of you who have already volunteered and registered.

This the spotters will be mostly using mobile 50-watt radio event using both the W4OVH repeater and the Bluemont repeater. Some locations will be able to operate using hand-held radios, but that is only in very few locations very close to The Farm Brewery, which is the starting and finishing point for the bike ride. The event will be that Saturday morning from 0600 - 0800 starting (depending on your location through about 1400-1500 (2 - 3 PM ending time). Volunteer t-shirts, free lunch and a free beer will be provided to all ham operator volunteers. Go to https://www.bikereg.com/volunteers-warrior-ride to sign up and register as a ham operator volunteer. This is a FREE event for the ham operators! But you must start the registering process from that web site which suggests a payment will be required. It is not for the ham operators. After starting to register, scroll down until you see "Ham Operator" and then select "Ham Operator" only. If you then finish the web form, you will see at the bottom that the cost to you is $0.00! If you want or need further information, please contact Andy / KJ4MPT via e-mail at andy@gamponia.com

A reminder to check in to the OVH's Thursday night VHF/UHF repeater net at 8:00 PM. How to do details for that are on the OVH's web site: https://w4ovh.net – a great way to stay in touch.

Questions, comments or war stories can be directed to my e-mail: KN4DD@arrl.net

73, Ken / KN4DD

Sunshine Corner

Happy Birthday wishes to these club members having birthdays in August: Ken / KD4VA, John / KK4TCE, Karl / W4KRL, Stu / W4PR, Ronnell / KK4ZUR, Vern / KO4LVS, Chick / KC1PIA, Duane / KK4BZ, Raymond / KF4AQR and Andy / KJ4MTP. Each of you enjoy your day!

Great to see several OVH members at the Berryville Hamfest at the beginning of August. There was a tremendous turnout for the tailgate there, looked like a lot of shopping was going on! I include several photos of OVH members spotted at Berryville at the top of the following page.

Cont'd on page 4

On Saturday, September 7th will be the 7th Annual Willing Warriors Bike Race (Bicycles). This starts locally nearby and goes all the way up into Loudoun County. This event has several courses with different distances. Because it covers so much of an area, the ham community is very much needed to help along the course to make sure everything is running smoothly and to radio back to the control center if there are any issues. If you can come out and help that day, please go to this web site and sign up as a ham radio operator (for free). Go to https://www.bikereg.com/volunteers-warrior-ride All volunteers are required to register on the web site so that the sponsors hey know who will be out there. Thank you for your support!

You know it is the end of summer soon when the kids go back to school, hope the students and parents have a great school year!

An update on Don / WA2SWX and YL Edith, they have arrived at their new home in Ecuador, now the wait starts for all their stuff to arrive!

This month, we are recognizing Wayne N7QLK. Wayne was a very active member of our club for many years, including holding the President's job for several years. Wayne also chaired the Prince William County Half Marathon event for three years in a row. He recently retired and moved to Florida with his YL Vicki. Here is what Wayne sent me along with several photos:

"When it rains, it pours! And not just in Florida.

I decided to "throw in the towel", and retire last September. At the same time, Vicki said that she wanted to be closer to her father and family in Florida. So, we decided that after 24 years in Bristow, we would relocate to Ocala, Florida - here we come. But first, sell the house, oh, and take a moment to get a knee replaced (the other one can wait).

Sold the house in Bristow in January, bought a house in there February. Naturally, my first concerns as a HAM were: do I need any HOA armament? How can I configure

Cont'd on page 5

antenna(s)? Wow, the lightning sure looks intense here -what precautions do I need? Any fellow HAMs nearby? And, which box did I pack that gear in?

Wow, Field Day is just around the corner, as is 13 Colonies! Amazing how fast the time goes by (even when retired!!!). So, after about 90 days of house renovation / prep / move-in, two wedding events and a funeral, the antennas are up and the radios found! One 10m vertical, and an end-fed wire. I'm fortunate to have trees in the backyard.

I couldn't get "digitally configured", but I did make 67 contacts for Field Day, and one shy of a clean sweep in the 13 Colonies. Not too bad; almost like having to scramble for an emergency event!

Near goals: get the Icom-7300 on the air (FT8); possibly some POTA; and build a 6m Moxon. And, continue unpacking.

I am proud to have been/am a member of OVH. Haven't found a club here yet, so, guess I'll just keep checking in on the Thursday night net.

73 Wayne"

Thanks Wayne, nice and sunny there in the Sunshine State! Keep in touch!

Please send me your news, good, not so good and ham related info for this column!

Remember to join in on the Thursday night OVH VHF/UHF FM net at 8:00 PM which is a great way to keep up with current events and hear what everyone is up to! Details are on the W4OVH.NET web site.

Everyone, enjoy the rest of the Summer!

73 Theresa / KG4TVM kg4tvm@hotmail.com Tel: 703-257-3566

Minutes of the Ole Virginia Hams Amateur Radio Club Informal Meeting held on Tuesday, July 16, 2024:

OVH President Ken / KN4DD called the meeting to order at 7:30 PM on July 16, 2024 in the training room at the Buckhall Volunteer Fire Department Station. After the Pledge of Allegiance, all present stated their names and call signs.

Don / WA4MCM gave a program on creating a kit building company and gaining the needed skills. Don also showed several of his kits and told us of his future plans. His slides, including his contact information, are on the OVH's web site accessible by members only..

Cont'd on page 6

The minutes of the on June 18, 2024 meeting were approved.

Jeff / K9VEG gave the Treasurer's report and it was approved.

Luther / WA3FMO gave the membership report via email because of a family illness. There were three vote-ins and all three were voted in: Seth Freiberg / WA0FZY, Jim Lamb / KB0HSA, and Samson Lytle / KQ4IDK.

ARES. No report this month.

Ken / KE2N emailed the Repeater report: All repeaters working normally and one new DSTAR user approved. John/KG4NXT and Byron/AK4XR explained that the Air Conditioning at the Mount Pone site had failed and that one of the microprocessors was reporting 65 degC or 140 degF. Byron traced the problem to a board on the outside compressor unit but could not be sure of the health of the motor. Jeff / K9VEG moved that we replace rather than repair the AC unit at Mount Pone and this motion carried.

Mark / WA4KFZ gave the training report. He asked if anyone needed VE training or mentoring.

Tailgate report. No report.

Field Day report. No report.

Ken / KN4DD gave the web committee report. Attacks that appear to originate in Russia continue. They try inserting a comment with an attack payload. Our software defenses have held. There has been a four fold increase in attacks.

Sunshine. No report this month.

The winnings of the 50/50 raffle were won by Joe / KM4UYA and he donated the proceeds back to the club.

Old Business: None.

New Business: None

The meeting was then adjourned.

Reminders about some upcoming events / calendar dates:

HAMFESTS:

Nothing nearby in the remainder of August or in September.

HAM RADIO OPERATING / CONTEST EVENTS:

No specific operating events or contests to recommend the rest of August or in September.

The ARRL maintains a Contest web page at its web site at ARRL.org, but a much more comprehensive, up-to-date, and long range planning contesting calendar with links to the rules for the various events is maintained at https://contestcalendar.com by WA7BNM. Another very good web site for info is NG3K.com. If you have the radio contesting bug or just want to find out how much is going on - a lot -, these are very good places to look!

Cont'd on page 7

PUBLIC SERVICE / ARES EVENTS

September 7, 2024 - early morning until mid-afternoon. The 7th Annual Warrior Ride to be held locally, volunteers needed for communications support and spotters. See the President's letter earlier in the newsletter for more details.

Also check the online Calendar on the OVH's web site at W4OVH.NET for information about upcoming OVH related events. Also, check the online Calendar maintained by David / KG4GIY at http://pwcares.org for the latest PWC ARES updates. Complete direct contact information for David KG4GIY also appears on page 2 of this Newsletter.

New Air-Conditioning System at OVH's Mt. Pone Equipment Shed

As discussed at OVH's July 16th, 2024 meeting, it was reported that the Air Conditioning system at for OVH's Mt. Pone equipment shed had failed. One computer CPU there reported a temperature of 65 degC (149 degF). Because excessive heat is well known to the enemy of electronics, OVH member, Byron / AK4XR, visited the site and traced the problem to the control board of the outside unit compressor. However, he could not determine whether or not the motor was OK. At the meeting, he recommended replacing both the inside and outside units. In response, Jeff / K9VEG moved to replace both units and that motion passed. Byron ordered the units and installed them on July 19th with assistance from Gil / KM4OZH and John / KG4NXT. Those new units are now running in the Mt. Pone equipment shack and cooling all OVH equipment there. Thanks to all who helped with this project.

The “13 Colonies Special Event” in Early July

The 13 Colonies special event ran in early July, 2024. It consisted of contacting special event stations in each of the USA’s original 13 colonies were contacted, that was a “SWEEP.” The three bonus stations were: 1. at the Liberty Bell in Philadelphia, 2. England and 3. France. Many OVH members participated.

W4OVH Amateur Balloon Payload Experiment– Field Day, 2024

Bruce Crandall, KN4GDX

Our W4OVH team of radio experiment enthusiasts launched an amateur radio high altitude balloon (HAB) payload on Field Day, June 22, 2024. Our first ever launch attempt zoomed into the blue sky trailing a lengthy HF antenna. To the amazement of the small group of spectators, the balloon and payload headed toward an uncertain fate. How did we get here?

Background

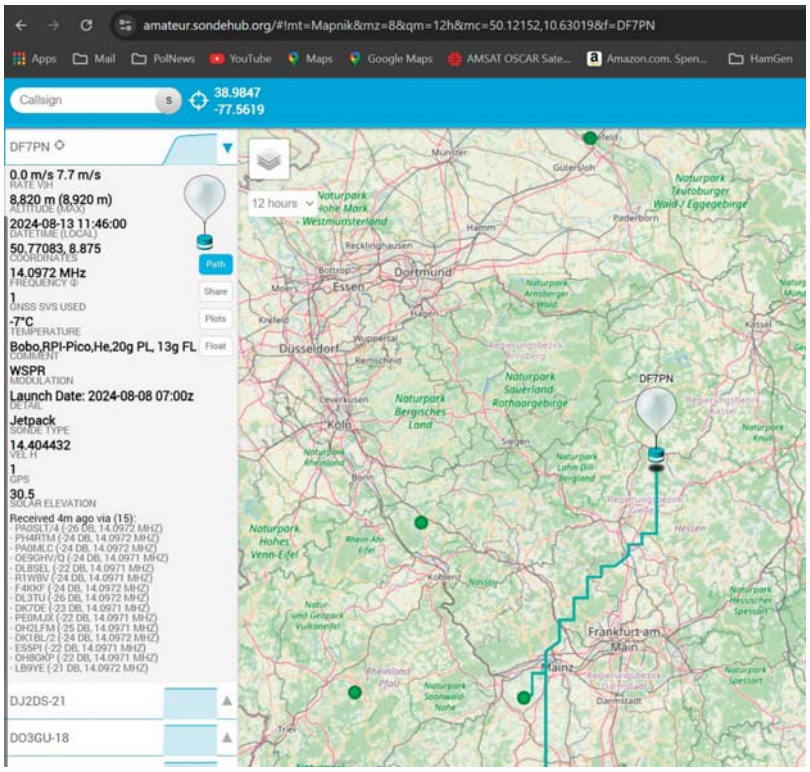
The earliest known hydrogen gas balloon launch, according to Wikipedia, took place near Paris in 1783. One of the spectators in attendance was Benjamin Franklin. The balloon, fashioned in rubberized silk, was about 13 feet in diameter. The hydrogen was generated by pouring sulfuric acid over iron, then delivered into the balloon via lead pipes. You can read the details on Wikipedia. The launch was successful, but the landing at a rural site about 20KM distant prompted an attack by local peasants involving knives and pitchforks.

There are many types of amateur balloon payloads and launching techniques with

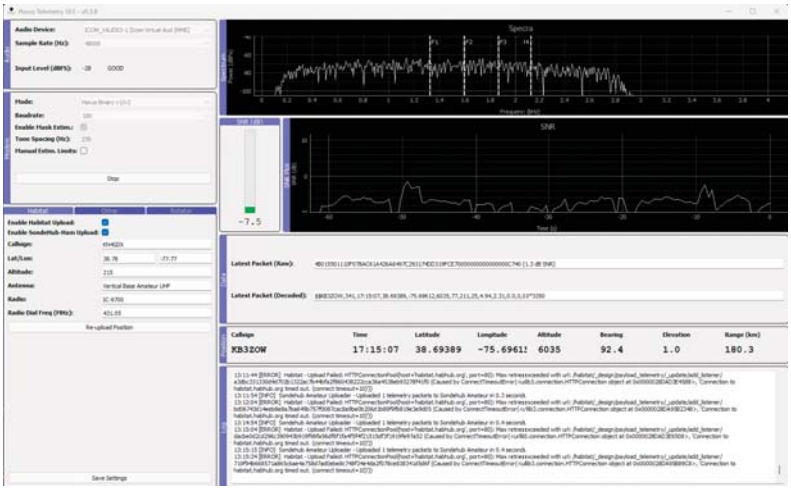
Cont’d on page 9

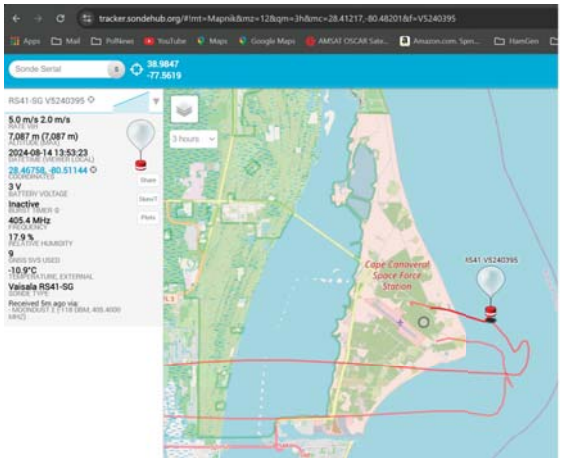
Cont'd from page 8

helium or hydrogen gas providing the balloon's lifting force. Latex and mylar balloons are commonly used. The most common payloads are APRS (VHF packet) and HF WSPR. APRS payloads operating on VHF are tracked via the global APRS receivers and reported on the APRS network and the radio amateur Sondehub web site: amateur.sondehub.org. Payloads using WSPR are tracked by the global HF WSPR receiver network and reported on the WSPR.net tracking site. The Sondehubsite provides mapping and payload information on both APRS and WSPR payloads, as well as additional payload methods.



Another payload of interest to many radio amateurs is the Horus payload system. Fewer HABs carry this payload, but it provides an interesting challenge to set up the proper equipment. The Horus payload typically transmits on 430 MHz using Four Frequency Shift Keying (4FSK). Tracking is done with the Horus application and a UHF receiver using USB mode. The Horus application decodes the packet information from the 4FSK modulation. HAB location and payload parameters are provided by the Horus application (http://amateur.sondehub.org) for viewing and tracking. So far, this is a rare HAB approach, but is growing in popularity. LoRa 433MHz or 900MHz is another new technology that is, or will soon be, employed in HAB payloads. As LoRa stations proliferate, this method may become common.





Tracking amateur HABs is a great learning experience and meshes nicely with the NOAA HAB tracking hobby.

Back to our experiment

In preparation for Field Day, 2024, John / KG4NXT asked if I would be willing to take the lead on an OVH-sponsored HAB payload launch. I accepted the challenge and provided the payload, while John, Byron, AK4XR and Gil, KM4OZH worked out details of procuring hydrogen and a storage to balloon delivery

Cont'd on page 10

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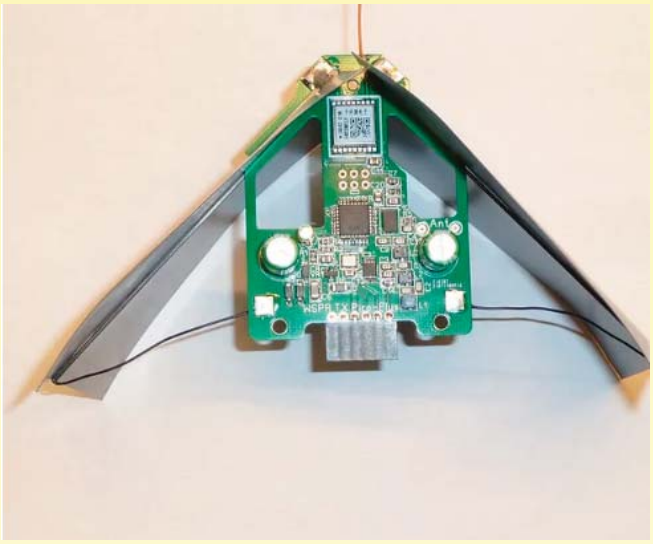
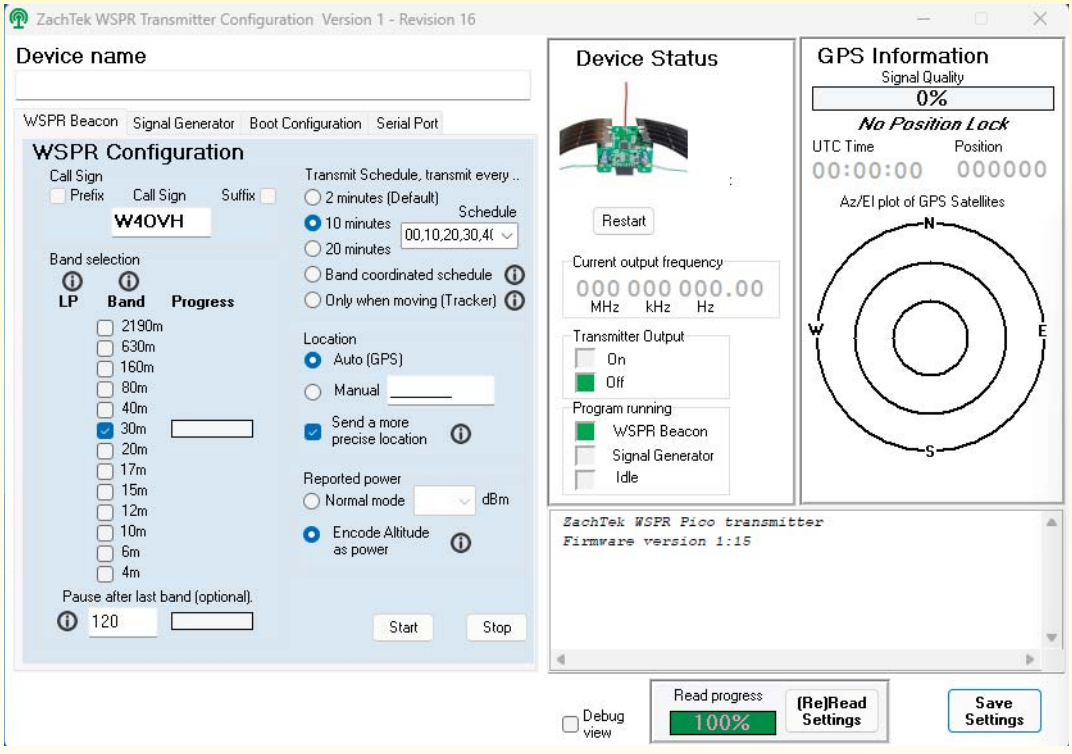
apparatus for the launch. John also took on the onerous task of coordinating with the FAA to advise of our launch. Our HAB/payload was well within the size, weight and tensile strength limits of FAA regulations.



Our balloon was a latex 36 inch style which was adequate to provide lift for the payload. The payload, weighing approximately one ounce, was comprised of an HF WSPR transmitter (in kit form), weighing approximately10 grams; and a wire dipole suitable for 30M WSPR transmission, at about 20 grams. Power was provided by two solar panels soldered to the transmitter kit in an inverted "V" configuration designed to provide good access to the sun angle as the payload rotates in its suspended state. The transmitter board includes two super-capacitors to help maintain power, when the solar panels cannot, due to sun angle or clouds.No batteries are involved in this design.



Programming the payload with call sign and WSPR frequency and other parameters is a simple matter of running the free application and a USB connection with the host computer. The vendor for our payload was Zachtek (web site: zachtek.com). Zachtek provides a number of aerial and terrestrial WSPR solutions for amateur hobbyists.Our payload included integrated GPS and the WSPR reporting included the six-element grid square.

The overall length of the OVH HAB was nearly 50 feet; and that's primarily due to the length of the vertically oriented 30M dipole – comprised of two approximately23-foot legs. The wire I used for the antenna was ~ 30-gauge coated copper wire. This wire has adequate strength to carry the very lightweight payload. Prior to FD24 I built a test, or prototype version of the ultimate flight unit and verified the operation

Cont'd on page 11

Cont'd from page 10

and WSPR reception of the flight configuration. On field day, the flight unit WSPR transmission was verified again prior to launch.

So, the question arises, how do you figure out the balloon size, hydrogen load, and other factors that contribute to a successful launch? I did some tethered experimenting using the prototype payload and large mylar balloons with helium. I was able to get a tethered payload up in the air long enough to verify proper power and operation through WSPR receptions. Unfortunately, tethering a balloon in even 'calm' conditions leads to trees capturing the balloon; and that's what happened in my case. Testing provided confidence our FD24 flight unit, usinga hydrogen balloon, should be successful. The remaining calculations involve obtaining adequate lift to enable ascent at a reasonable rate. Hydrogen lift is dependent, to first order, on the volume of the balloon. So, the final net lift is the hydrogen lift minus the weight of the balloon and payload. Our balloon was about one ounce, and the payload was also about one ounce. When filling the balloon we measured the resulting lift force using a 1 Newton, or 100 gram, scale.

The Launch

Our launch team, with several helpers to manage the long antenna legs, was successful in avoiding several HF antenna wires at the launch site; and rapidly ascended at several meters per second. The rapid rise and wind-borne track resulted in the OVH experimental balloon payload disappearing from sight.

Shortly after launch we noted tracking from several WSPR receivers, but no additional reception was reported beyond the first half hour after launch. The fate of W4OVH HAB is unknown. The payload carried my phone number in the event it was recovered. So far, there have been no calls.

Maybe there's another HAB launch in our W4OVH future? Bruce Crandall, KN4GDX.